

(10/026, 689)

(Initial)

Type	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Error
1	BRS 1	(video near3 segment\$5) same TAPPMOG	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/03 09:47		0	
2	BRS 0	US20030165273A	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:13		0	
3	IS&R 0	("US20030165273A").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:14		0	
4	IS&R 2	("20030165273").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:15		0	
5	BRS 3	006687.ap.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:16		0	
6	BRS 3	harville-m.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:16		0	
7	BRS 1	TAPPMOG	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:19		0	
8	BRS 423	mixture adj3 Gaussian	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:20		0	
9	BRS 0	"mixture of Gaussians"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:19		0	
10	BRS 384	mixture adj2 Gaussian	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:21		0	
11	BRS 199	(mixture adj2 Gaussian) with model\$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:21		0	
12	BRS 11	((mixture adj2 Gaussian) with model\$4) same video	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 08:21		0	
13	BRS 8	((((mixture adj2 Gaussian) with model\$4) same video) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 09:28		0	



Type	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
14	BRS 13	6188777.URPN.	USPAT	2004/10/29 08:39		0	
15	BRS 8	6188777.URPN. and model\$4	USPAT	2004/10/29 09:27		0	
16	BRS 697	((time\$1 histor\$7 temporal\$2) with (Gauss\$4 statistical\$2) with model\$3	USPAT	2004/10/29 09:48		0	
17	BRS 34	((time\$1 histor\$7 temporal\$2) with (Gauss\$4 statistical\$2) with model\$3) with (video surveillance intru\$4 background personnel fac\$3)	USPAT	2004/10/29 09:36		0	
18	BRS 33	((time\$1 histor\$7 temporal\$2) with (Gauss\$4 statistical\$2) with model\$3) with (video surveillance intru\$4 background personnel fac\$3) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 09:37		0	
19	BRS 37	((time\$1 histor\$7 temporal\$2) with (Gauss\$4 statistical\$2) with model\$3) same (video background)	USPAT	2004/10/29 09:37		0	
20	BRS 36	((time\$1 histor\$7 temporal\$2) with (Gauss\$4 statistical\$2) with model\$3) same (video background)) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 12:14		0	
21	BRS 151	(video near\$3 segment\$5) with background	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 09:48		0	
22	BRS 7	((video near\$3 segment\$5) with background) with ((Gauss\$4 statistical\$2) near\$3 model\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 12:10		0	
23	BRS 21	((video near\$3 segment\$5)) with ((Gauss\$4 statistical\$2) near\$3 model\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 12:11		0	
24	BRS 2	((video near\$3 segment\$5)) with (mix\$5 near\$3 (Gauss\$4 statistical\$2))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 12:13		0	
25	BRS 9	((video near\$3 segment\$5)) same (mix\$5 near\$3 (Gauss\$4 statistical\$2))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 12:13		0	
26	BRS 6	((video near\$3 segment\$5)) same (mix\$5 near\$3 (Gauss\$4 statistical\$2))) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 14:10		0	
27	IS&R 12	((("6263088") or ("6249613") or ("6141433") or ("6075875") or ("5915044") or ("5764803")),PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 14:12		0	



Type	Hits	Search Text	Dbs	Time Stamp	Comments	Error Definition	Error Count
28	BRS 2	((("6263088") or ("6249613") or ("6141433") or ("6075875") or ("5915044") or ("5764803"))).PN.) and ((background foreground) with model\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/29 14:12		0	
29	BRS 0	(Gaussian adj1 model\$4) with (update\$3 train\$3 modif\$7 improv\$3 revs\$3) with (feedback)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:07		0	
30	BRS 638	((model\$4) with (update\$3 train\$3 modif\$7 improv\$3 revs\$3) with (feedback)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:08		0	
31	BRS 0	((Gaussian near\$5 model\$4) with (update\$3 train\$3 modif\$7 improv\$3 revs\$3) with (feedback)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:14		0	
32	BRS 0	((background near\$3 model\$4) with ((update\$3 train\$3 modif\$7 improv\$3 revs\$3) with (feedback)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:08		0	
33	BRS 204	((model\$4) with (update\$3 ((Gaussian near\$5 model\$4) with (update\$3 train\$3 modif\$7 improv\$3 revs\$3) with (feedback))) with (feedback)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:09		0	
34	BRS 0	((model\$4) with (update\$3 ((Gaussian near\$5 model\$4) with (update\$3 train\$3 modif\$7 improv\$3 revs\$3) with (feedback))) with (feedback)) same (Gaussian background foreground)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:09		0	
35	BRS 177	((model\$4) with (update\$3 ((Gaussian near\$5 model\$4) with (update\$3 train\$3 modif\$7 improv\$3 revs\$3) with (feedback))) with (feedback)) and (Gaussian background foreground)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:09		0	
36	BRS 1	((hypothes\$1s model\$4) with (update\$3) with ((positive negative) adj1 feedback)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:11		0	
37	BRS 6	((hypothes\$1s model\$4) with (update\$3 improv\$5 modif\$7) with ((positive negative) adj1 feedback)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:12		0	
38	BRS 209	(Gaussian near\$5 model\$4) with (update\$3 train\$3 modif\$7 improv\$3 revs\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:20		0	
39	BRS 56	(Gaussian near\$5 model\$4) with (update\$3 modif\$7)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:20		0	
40	BRS 28	(Gaussian near\$5 model\$4) with (update\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 13:20		0	



Type	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Error Rate
41	BRS 19	((Gaussian near\$5 model\$4) with (updat\$3) ) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 15:47		0	
42	BRS 46	perceptron adj1 learning	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 15:47		0	
43	BRS 38	(perceptron adj1 learning) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/01 15:48		0	
44	IS&R 2	("6188777").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 13:48		0	
45	BRS 91	segmentation with confidence	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 14:58		0	
46	BRS 3	(segmentation with confidence) same track\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 13:49		0	
47	BRS 165	segment\$5 near3 confidence	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 15:00		0	
48	BRS 64	(segmentation with confidence) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 15:01		0	
49	BRS 15	segment\$5 with confidence with pixel	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 15:53		0	
50	BRS 8	(segment\$5 with confidence with pixel) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 15:54		0	
51	BRS 16	classifi\$7 with confidence with pixel	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:03		0	
52	BRS 12	(classifi\$7 with confidence with pixel) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:05		0	
53	BRS 1354	(classifi\$7 segment\$5) with (confidence score measure\$4) with (combin\$5 merg\$3 integrat\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:05		0	



Type	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
54	BRS 24	((classif\$7 segment\$5) with (confidence score measure\$4) with pixel with (combin\$5 merg\$3 integrat\$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:08		0	
55	BRS 17	((classif\$7 segment\$5) with (confidence score measure\$4) with pixel with (combin\$5 merg\$3 integrat\$3)) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:09		0	
56	BRS 1	((classif\$7 segment\$5) with (confidence score) with pixel with (combin\$5 merg\$3 integrat\$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:08		0	
57	BRS 297	((classif\$7 segment\$5) with (confidence score) with (combin\$5 merg\$3 integrat\$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:08		0	
58	BRS 273	((classif\$7 segment\$5) with (confidence score) with (combin\$5 merg\$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:09		0	
59	BRS 129	((classif\$7) with (confidence score) with (combin\$5 merg\$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:10		0	
60	BRS 78	((classif\$7) with (confidence score) with (combin\$5 merg\$3)) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:10		0	
61	BRS 122	((classif\$7) with (confidence score) with (combin\$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 16:10		0	
62	BRS 72	((classif\$7) with (confidence score) with (combin\$5)) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:04		0	
63	BRS 452	((sensor classifier) near3 (fusion combination)) with add\$6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:08		0	
64	BRS 12	((classifier) near3 (fusion combination)) with add\$6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:04		0	
65	BRS 9	((classifier) near3 (fusion combination)) with add\$6 and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:06		0	
66	BRS 25	((sensor)adj1 (fusion)) with add\$6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:06		0	

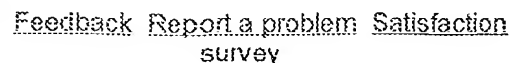


Type	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Error Count
67	BRS 18	((((sensor)adj1 (fusion)) with add\$6) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:13		0	
68	BRS 0	((mult\$1mod\$2 adj1 classifier) with (score confidence) with (fusion combination) with add\$6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:10		0	
69	BRS 0	((mult\$1mod\$2 adj1 classifier) with (score confidence) with (fuss\$3 combin\$5) with add\$6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:11		0	
70	BRS 0	((mult\$6 near3 classifier) with (score confidence) with (fuss\$3 combin\$5) with add\$6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:12		0	
71	BRS 0	((mult\$6 near3 classifier) with (score confidence) with add\$6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:12		0	
72	BRS 40	((mult\$6 near3 classifier) with add\$6	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:12		0	
73	BRS 29	((mult\$6 near3 classifier) with add\$6) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:56		0	
74	BRS 1	Hausdorf with template with match	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:51		0	
75	BRS 2	Hausdorf with template	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:56		0	
76	BRS 2	Hausdorf same template	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:56		0	
77	BRS 198	Hausdorf	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:56		0	
78	BRS 12	Hausdorf and template	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:56		0	
79	BRS 7	(Hausdorf and template) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/02 17:56		0	



Type	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
80	BRS 109	((classif\$7 label\$4) near3 error) with model\$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/03 09:50		0	
81	BRS 75	((classif\$7 label\$4) near3 error) with model\$4) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/03 09:51		0	
82	BRS 16	((classif\$7 label\$4) with (error adj1 model\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/03 09:55		0	
83	BRS 7	((classif\$7 label\$4) with (error adj1 model\$4))) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/03 10:53		0	
84	BRS 73	((classif\$7 label\$4) with (error near3 model\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/03 09:55		0	
85	BRS 49	((classif\$7 label\$4) with (error near3 model\$4))) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/03 10:54		0	
86	BRS 29	(merg\$3 combin\$5 join\$3 integrat\$3) near3 (error adj1 model)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/03 10:54		0	
87	BRS 19	((merg\$3 combin\$5 join\$3 integrat\$3) near3 (error adj1 model)) and @ad<20011210	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/03 12:35		0	
88	BRS 5316	382/103,106,156-159,164,173,176,180,224-228,358/464;706/20.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/03 12:36		0	





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Relevance scale      

November 2003 **First ACM SIGMM international workshop on Video surveillance**

Most of the automated video-surveillance applications are based on the process of background modelling, aimed at discriminating motion patterns of interest at pixel, region or frame level in a nearly static scene. The issues characterizing an ordinary background modelling process are typically three: the background model representation, the initialization, and the adaptation. This paper proposes a novel initialization algorithm, able to bootstrap an integrated pixel and region-based background m ...

**Keywords:** Hidden Markov Model, pixel-region background initialization, video surveillance


October 2004 **Proceedings of the ACM second international workshop on Video surveillance & sensor networks**

Accurate background modeling is fundamentally important to motion-based segmentation, object tracking, and video surveillance. Models must discriminate between coherent foreground motion and periodic, random, or small pixel variations typically found in complex outdoor scenes. We introduce an adaptive match filter framework that is capable of modeling the locally changing spatial image structure. The correlation values of these filters are combined to robustly discriminate foreground regions ...

**Keywords:** background modeling, dynamic scenes, minimum average correlation energy filter

October 2001 **IEEE/ACM Transactions on Networking (TON)**, Volume 9 Issue 5



Full text available:  [pdf\(375.00 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)


Heterogeneous network traffic possesses diverse statistical properties which include complex temporal correlation and non-Gaussian distributions. A challenge to modeling heterogeneous traffic is to develop a traffic model which can accurately characterize these statistical properties, which is computationally efficient, and which is feasible for analysis. This work develops wavelet traffic models for tackling these issues. In specific, we model the wavelet coefficients rather than the original t ...

**Keywords:** Long-range dependence, network traffic modeling, self-similar traffic, wavelets

#### 4 [Poster: Gaussian Mixture Models for on-line signature verification](#)

Jonas Richiardi, Andrzej Drygajlo

November 2003 **Proceedings of the 2003 ACM SIGMM workshop on Biometrics methods and applications**

Full text available:  [pdf\(378.21 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)


This paper introduces and motivates the use of Gaussian Mixture Models (GMMs) for on-line signature verification. The individual Gaussian components are shown to represent some local, signer-dependent features that characterise spatial and temporal aspects of a signature, and are effective for modelling its specificity. The focus of this work is on automated order selection for signature models, based on the Minimum Description Length (MDL) principle. A complete experimental evaluation of the Ga ...

**Keywords:** Gaussian Mixture Models, Hidden Markov Models, biometrics, model order, on-line signature, signature verification

#### 5 [Image Models](#)

Narendra Ahuja, B. J. Schachter

December 1981 **ACM Computing Surveys (CSUR)**, Volume 13 Issue 4

Full text available:  [pdf\(2.99 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

#### 6 [Special issue on independent components analysis: A generative model for separating illumination and reflectance from images](#)

Inna Stainvas, David Lowe

December 2003 **The Journal of Machine Learning Research**, Volume 4


Full text available:  [pdf\(764.42 KB\)](#) Additional Information: [full citation](#), [abstract](#), [index terms](#)

It is well known that even slight changes in nonuniform illumination lead to a large image variability and are crucial for many visual tasks. This paper presents a new ICA related probabilistic model where the number of sources exceeds the number of sensors to perform an image segmentation and illumination removal, simultaneously. We model illumination and reflectance in log space by a generalized autoregressive process and Hidden Gaussian Markov random field, respectively. The model ability to d ...

#### 7 [Recognition: Real-time and accurate segmentation of moving objects in dynamic scene](#)

Tao Yang, Stan Z. Li, Quan Pan, Jing Li

October 2004 **Proceedings of the ACM second international workshop on Video surveillance & sensor networks**

Full text available:  [pdf\(644.10 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)



Fast and accurate segmentation of moving objects in video sequences is a basic task in many computer vision and video analysis applications. It has a critical impact on the performance of object tracking and classification and activity analysis. This paper presents effective methods for solving this problem. Firstly, a fast and efficient algorithm is presented for background update to handle various sources of scene changes, including ghosts, left objects, camera shaking, and abrupt illuminat ...

**Keywords:** background modeling, foreground segmentation, video processing, video surveillance

8 System section: 3D video surveillance with Augmented Virtual Environments

Ismail Oner Sebe, Jinhui Hu, Suya You, Ulrich Neumann

November 2003 **First ACM SIGMM international workshop on Video surveillance**

Full text available:  pdf(583.25 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)


Recent advances in sensing and computing technologies have inspired a new generation of data analysis and visualization systems for video surveillance applications. We present a novel visualization system for video surveillance based on an Augmented Virtual Environment (AVE) that fuses dynamic imagery with 3D models in a real-time display to help observers comprehend multiple streams of temporal data and imagery from arbitrary views of the scene. This paper focuses on our recent technical extens ...

**Keywords:** augmented reality, object detection and tracking, video surveillance

9 On the propagation of long-range dependence in the Internet

A. Veres, Kenesi S. Molnár, G. Vattay

August 2000 **ACM SIGCOMM Computer Communication Review , Proceedings of the conference on Applications, Technologies, Architectures, and Protocols for Computer Communication**, Volume 30 Issue 4

Full text available:  pdf(1.34 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)


This paper analyzes how TCP congestion control can propagate self-similarity between distant areas of the Internet. This property of TCP is due to its congestion control algorithm, which adapts to self-similar fluctuations on several timescales. The mechanisms and limitations of this propagation are investigated, and it is demonstrated that if a TCP connection shares a bottleneck link with a self-similar background traffic flow, it propagates the correlation structure of the background traf ...

**Keywords:** TCP adaptivity, TCP congestion control, long-range dependence, self-similarity

10 Jeremiah: the face of computer vision

Richard Bowden, Pakorn Kaewtrakulpong, Martin Lewin

June 2002 **Proceedings of the 2nd international symposium on Smart graphics**

Full text available:  pdf(4.69 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper presents a humanoid computer interface (Jeremiah) that is capable of extracting moving objects from a video stream and responding by directing the gaze of an animated head toward it. It further responds through change of expression reflecting the emotional state of the system as a response to stimuli. As such, the system exhibits similar behavior to a child. The system was originally designed as a robust visual tracking system capable of performing accurately and consistently within a ...